

International Sanitary Regulations

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This year, on October 1, the quarantine provisions in the existing international sanitary conventions and agreements, 13 in number, dating from 1903 to 1946, were replaced by a single text—the International Sanitary Regulations of the World Health Organization. This means that uniform rules will give a maximum of protection against the transmission of pestilential diseases with a minimum of interference with travel and trade. It also means that travelers on an international voyage will no longer be exposed to arbitrary action on the part of quarantine services at the place of arrival as has hitherto been the case in many countries.

Living in the Past

The lack of universal quarantine rules has been particularly grave in the field of air navigation, which is precisely where they are most needed. Only 29 countries ever ratified the International Sanitary Convention for Aerial Navigation of 1944, modifying the one of 1933. Fourteen countries, moreover, still adhered to the 1933 convention as originally written. Ten of these 43 countries, among them the United States, had made more or less sweeping reservations, reserving their freedom of action. Some 40 countries, many of them important in air traffic, never became a party to any sanitary convention and could therefore deal with planes and passengers as they pleased.

In regard to maritime navigation, 29 countries had ratified the 1944 convention modifying the 1926 convention. Twenty of the coun-

tries that ratified the 1926 convention did not ratify the 1944 one. Ten countries still went by the 1912 convention. The remaining countries had never become a party to a convention.

In other words, there was a lag of nearly half a century in the conceptions of many countries as to how to deal with matters concerned with foreign quarantine. Turning back the clock merely a quarter of a century places us in the days when there were neither antibiotics nor cheap, powerful insecticides. There was no yellow fever vaccine then, and Soper had not yet discovered jungle yellow fever. Plague-infected vessels were commonplace. Cholera, typhus, and smallpox had recently made dramatic raids into Europe. In short, only yesterday half of the official world was acting as if it were living among the shadows of a remote past, undisturbed by the droning of airliners in the skies, unaware of the magic of modern preventive medicine, afraid of ghosts long laid.

The need for uniform quarantine rules had been recognized for a century. The first international sanitary conference met in Paris in 1851. Subsequent conferences were held in capitals ranging geographically from Washington in the West to Constantinople in the East. Because of lack of knowledge regarding the transmission of epidemic disease, the conferences accomplished for the ensuing 50 years little more than keeping the problem alive in the minds of the government departments concerned.

The seaborne plague pandemic, which reached all continents except Australia around the turn of the century, greatly strengthened interest in standardized quarantine measures. The first international sanitary convention was concluded in 1903 and brought up to date in 1912. The Pan American Sanitary Bureau was founded in 1902 and the International Office of Public Health in Paris, in 1907. Reg-

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ulation of quarantine measures, originally agreed upon only for plague and cholera, were gradually extended to yellow fever, smallpox, and typhus. The most important international quarantine conventions were those of 1926 for shipping, of 1933 for air navigation, both revised in 1944, and the Pan American Sanitary Code of 1924.

The procedure of international conventions was slow and cumbersome. Ratifications came in tardily, if at all. The Pan American Sanitary Code was the only instrument ratified by all the countries concerned. The means of epidemic control progressed by leaps and bounds, and the pattern of international travel changed almost overnight, hopelessly outmoding the conventions before they were ever ratified. It became evident that new ways had to be found if order was to prevail in this important field of foreign relations.

International Health Legislation

With the entry into force of the constitution of the World Health Organization, a solution of international quarantine problems became possible. Article 21 (a) of the constitution provides that the World Health Assembly shall have authority to adopt regulations concerning sanitary and quarantine requirements and other procedures designed to prevent the international spread of disease. According to article 22, such regulations shall come into force for all member states unless they notify the Director General of WHO of rejection or reservations within the period stated in the regulations. In the United States, the constitution of the World Health Organization was approved by Joint Resolution of the House and the Senate, and the bill was signed by the President on June 14, 1948.

An Expert Committee on International Epidemiology and Quarantine was set up by the World Health Organization, and the opinions of numerous experts on related matters were obtained. In 1949 WHO international regulations successfully met their first test in one of the less controversial fields—nomenclature of diseases and causes of death. In 1950 the expert committee finished its first draft of the quarantine regulations and it was sent to the governments for their comment.

In the United States, the draft was carefully reviewed, and many recommendations for changes were made by an ad hoc committee set up by the Department of State. The Public Health Service, the General Counsel of the Federal Security Agency, the Army, Navy, and Air Forces, the Departments of Commerce and Justice, the offices of the Department of State concerned, and shipping and air transport interests were represented on this committee. A new draft, taking into account the recommendations of governments, was prepared by the WHO Expert Committee on Quarantine. This draft served as a basis for the deliberations of the Special Committee on International Sanitary Regulations which met in Geneva in April 1951 with all member states invited.

Forty nations were represented at the meeting of the special committee, which lasted 5 weeks. The committee was reconstituted by the Fourth World Health Assembly immediately after the meeting. Sixty-four nations participated in the final deliberations. The delegates, who were speaking officially for their governments, included many prominent experts in epidemiology, quarantine procedure, and international law.

The delegation of the United States took an active part in the work of the committee. The interests of the United States in foreign travel and trade by air and by sea have increased enormously in recent years, while the high state of our public and personal sanitation has made us practically impervious to outbreaks of such pestilential diseases as cholera and louse-borne typhus. While the United States was formerly among the highly "protectionist" countries in regard to quarantine measures, there is now reason to revise our stand. However, the country is still exposed to smallpox and so is anxious to have adequate vaccination requirements.

European countries with a high state of sanitation tended to be "liberal" while the more vulnerable countries of South Asia and the Near East tended to be "protectionists," but positions fluctuated with the nature of the problems. A firm intent to keep the discussions on a scientific level was nevertheless in evidence. The position of the delegation of the United States may be described as "middle of the road." We were primarily concerned with bringing the nu-

merous countries hitherto fairly free to exercise arbitrary action under an up-to-date system of rules, and providing an efficient administration of this system and a machinery for keeping it up to date. We were thus particularly interested in having the various provisions adopted by large majorities so that subsequent reservations or rejections would be reduced to a minimum.

The Epidemiological Situation

The world situation in regard to pestilential disease presented to the special committee was very different from the one confronting the groups who drafted the 1926 and 1933 conventions. New powerful insecticides, such as DDT, have greatly facilitated the control of plague, typhus, and urban yellow fever. A most reliable vaccine against yellow fever is now widely used. New methods of treatment make plague, typhus, and cholera less deadly than formerly. In general, defenses against disease are much better now than then. However, transoceanic air travel has brought us much closer to the great endemic foci of pestilential diseases.

The incidence of several of the quarantinable diseases has diminished greatly, largely because of the more effective means of control. Yellow fever has long been confined to jungle areas in Africa, South America, and Central America. Plague has become almost entirely a rural problem. Apart from the plague centers in Communist China and other Communist areas, where no information is available, plague in Asia is now limited to restricted areas of Java, Vietnam, Cambodia, Burma, parts of India, and a few remote spots in the mountains of Iran and Arabia. There is an old plague center around the Rift Valley in central Africa and another in Madagascar. Various rural areas in Argentina, Peru, Ecuador, Venezuela, and northeastern Brazil still produce a few plague cases. Sylvatic plague exists in South Africa and in the western United States. Only five seaports, all in South Asia, have been plague-infected within the last few years. There have been only two known plague-infected ships in the world during the last 5 years. Apart from a few sporadic cases, cholera has been confined during the last 3 years to the countries around the Bay of Ben-

gal—India, East Pakistan, and Burma. Cholera is endemic in certain areas of southern China, but no recent information is available.

Smallpox alone among the quarantinable diseases has a world-wide distribution and is of frequent occurrence in many seaports and airport cities. The smallpox-free area of the world consists only of Alaska, Canada, the West Indies, Greenland, Iceland, the Scandinavian countries, Australia, New Zealand, the Philippines, and the Pacific Islands. In the United States, there are now only a few sporadic cases of the mild type in some midwestern States. In western Europe, smallpox is no longer endemic except in parts of Portugal, but minor outbreaks traceable to imported infection still occur from time to time. Most of Asia and Africa and parts of South America are still heavily infected with smallpox, and the prevention of its international transmission remains a major problem.

It is evident from this summary that a large part of the world traffic is no longer exposed to infection by plague, cholera, or yellow fever. Another large sector may be exposed only occasionally to smallpox. It should be possible, therefore, to avoid delays on account of quarantine measures in regard to a very substantial part of international travel.

Epidemiological Information Network

In order to apply quarantine measures intelligently, it is indispensable that information on the incidence of the quarantinable diseases, and especially of new outbreaks, should be available without delay. The epidemiological information required under the old conventions was clearly insufficient. Smallpox, for example, was not required to be reported unless there was an epidemic, and the definition of an epidemic was left to the discretion of local health officers. The United States, consequently, when ratifying the 1926 and 1933 conventions, reserved the right to determine which localities were infected. However, if each country were to determine which parts of the world it wanted to consider infected, the road would be wide open to arbitrary action of various kinds.

The United States delegation, therefore, strongly advocated complete, regular, and im-

mediate notification of any occurrence of plague, cholera, yellow fever, and smallpox, as well as of plague infection among rats. The proposals of the American delegation were on the whole accepted. Under the new regulations we shall have a world-wide epidemiological information system modeled on that developed since 1925 by the League of Nations, now the World Health Organization, epidemiological station at Singapore. The Singapore station has probably contributed more than any other single factor to the disappearance of plague and cholera from all but a few ports of South Asia. Other relevant information, notably regarding the state and workings of the quarantine services, is also required under the new regulations. The development of the epidemiological information network has reached a point where it is felt that it can meet the requirements of the new system.

Vaccination and Insect Control

Another important point carried by the American delegation, although against considerable opposition, was the right of a country to require a valid smallpox vaccination certificate of any traveler arriving from abroad. Hitherto, we have exercised this right on the basis of our reservation to the 1926 and 1933 conventions, but we would not have been in a position to have a similar reservation accepted for the regulations. At present, we waive the requirements for arrivals from Canada and various other nearby areas. However, it is our opinion that, in view of the ubiquitousness of smallpox and its long incubation period, there can be no other guarantee against international transmission than adequate vaccination of all travelers who may possibly have been exposed to infection.

Safeguards against the transmission of yellow fever are based on vaccination of travelers proceeding from infected to receptive areas and on disinsectization of planes. Yellow fever vaccination is considered to give full protection against the disease for at least 6 years.

As heretofore, measures against international transmission of plague are directed against the presence of rats on ships and in ports. Half-yearly examination of ships for rats remains

compulsory, but as a large majority of ocean-going ships are now ratproof, the number of deratting operations is declining rapidly. Deratting and disinsectization of other means of transportation may be undertaken if necessary. Except in the case of pulmonary plague, measures against plague are now directed against rodents and their ectoparasites rather than against people. Antiplague vaccination cannot be required as a condition of entry into a country.

Vaccination is an important element in the prevention of cholera. Surveillance for not more than 5 days, reckoned from the date of departure from an infected local area or debarkation from an infected ship, will be substituted for isolation if the passenger is properly vaccinated. Unfortunately, the immunity conferred by vaccination is of short duration, and the vaccination must be repeated every 6 months. The regulations prohibit rectal swabbing unless by consent of the passenger, and stool examinations may be required only if a passenger coming from an infected local area within the incubation period shows symptoms of cholera.

Louse-borne typhus and relapsing fever are now prevented so readily that special measures are not compulsory. Regulations have been kept on the books for use in exceptional cases of epidemics brought about by war or other disturbed conditions. Vaccination against typhus shall not be required as a condition of admission to an area.

Measures to facilitate quarantine procedures, such as the granting of radio pratique to ships and aircraft, are encouraged.

The only international sanitary documents which may be required are certificates of vaccination against smallpox (validity 3 years), yellow fever (validity 6 years), and cholera (validity 6 months), Deratting Certificate and Deratting Exemption Certificate, the Maritime Declaration of Health, and the health part of the Aircraft General Declaration. Charges for medical examinations or vaccinations on arrival are prohibited.

Unanimity and Few Reservations

The International Sanitary Regulations were adopted unanimously on May 25, 1951, by the

64 member states present at the Fourth World Health Assembly. In voting the regulations the assembly passed several resolutions dealing with their administration and with allied problems. The duty of governments to maintain the highest sanitary standards, notably in their ports and airports, including elimination of rodents and mosquito vectors, was stressed.

After careful examination by all Government departments and agencies interested and the industries concerned, the United States decided to make no reservations. Leaving out of consideration the 10 member states of the Communist bloc which have announced their withdrawal from WHO and therefore cannot be counted upon to apply the regulations, there remain 69 member states and associate members. Forty-eight of these governments, including countries with large international traffic, such as the United Kingdom, France, Italy, Spain, Brazil, Mexico, Japan, and Indonesia, made no reservation. This is a proof of the soundness of the procedure and a high compliment to the work of the special committee of the World Health Assembly.

Article 107 of the regulations provides that reservations, in order to become effective, must be accepted by the World Health Assembly. Preliminary examinations of the reservations were made by a small ad hoc committee. The Fifth World Health Assembly set up a working group on which all member states were represented. An important work of reconciliation between conflicting interests, in which the delegate of the United States participated actively, was performed in this working group. There are, of course, situations which merit special consideration. The regulations were not written to prevent any country from taking obviously necessary measures. Cholera-free Ceylon, for example, is next door to the endemic cholera foci of Madras Presidency. India, *Aedes aegypti* infested and with a huge monkey population, lives in deadly fear of the introduction of yellow fever. The Mecca pilgrimage holds dangerous possibilities. Some countries do not yet have the equipment required by the regulations. These and other justifiable needs were met without endangering the organic structure of the regulations, and almost everyone was satisfied.

Reservations from five democratic European countries related merely to parliamentary approval. Several reservations referred to matters of only slight importance and others were dropped. Satisfactory compromises were made on most points with Burma, India, Ceylon, Pakistan, Saudi Arabia, Egypt, and the Union of South Africa. The report of the working group was adopted by the assembly with 56 affirmative votes, 1 against, and 1 abstention. Practically all the active member states of the World Health Organization are parties to the regulations. In countries that do not adhere to the regulations the old conventions will remain in force.

It remains for the Sixth World Health Assembly to deal with reservations made on behalf of certain overseas possessions which may be made under article 106.2 up to December 11, 1952.

Administration of the Regulations

The Director General of the World Health Organization is charged with the international coordination of the regulations. He will have at his side a Committee on International Sanitary Regulations composed of experts in epidemiology and epidemiological information, port and airport sanitation, quarantine procedure, international law, shipping, and aviation. This committee will hold its first meeting sometime in 1953. It will review the workings of the regulations on the basis of an annual report by the Director General and make recommendations thereon, prepare additional regulations, when necessary, on diseases not covered by the regulations, make recommendations on practices and procedures, and assist the Director General, when necessary, in the settling of disputes.

An orderly and flexible procedure has thus been devised to adjust quarantine measures to changing requirements. The public is being protected against pestilential diseases as well as against undue interference with liberty of travel. Order has been brought out of confusion, good will between nations has been enhanced, and international legislation has been enacted by means of suitable machinery and democratic procedure.